

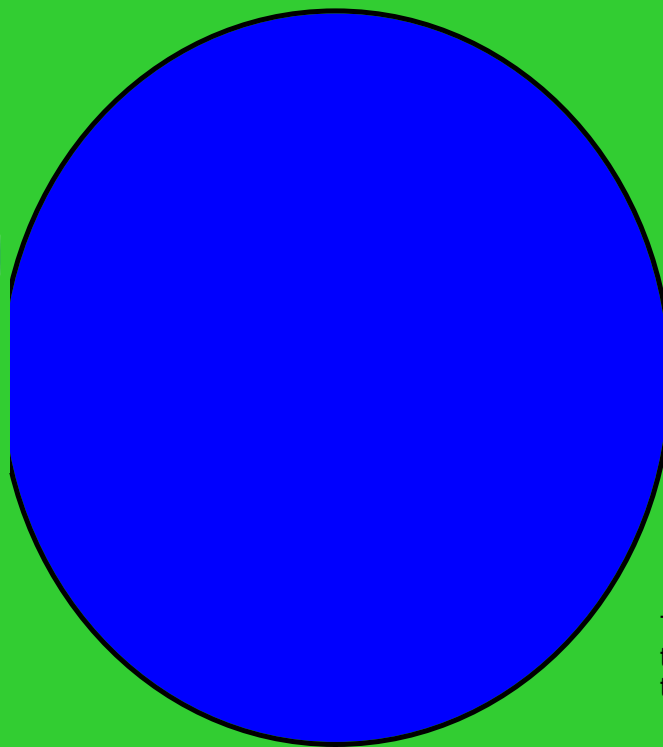
## Multiplying Integers Modelling



-1



+1



Start with an empty circle.

The first number tells you to either put in or take out sets of tiles

The second number tells you the number of tiles in each set and what colour (sign) they will be.

**Example**  
**+5 x -3**

Plus 5 tells you to put 5 sets of tiles INTO the circle

The second number tells you that it needs to be sets of three red tiles.

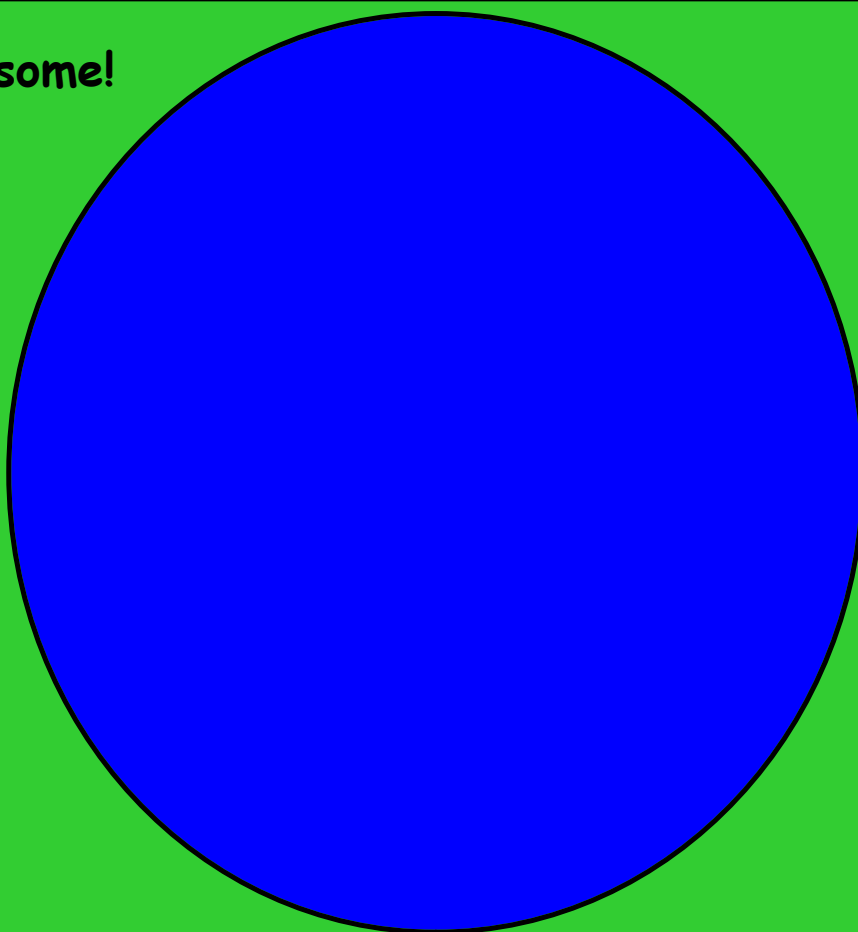
Let's try some!



-1



+1

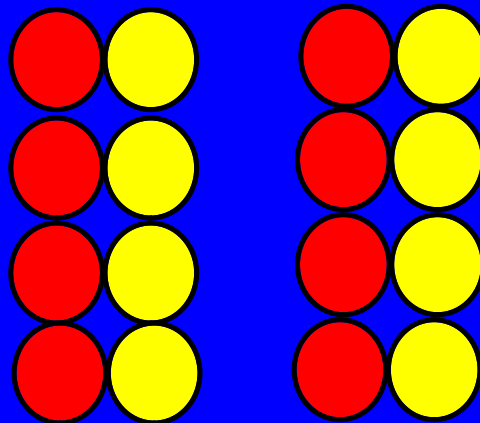
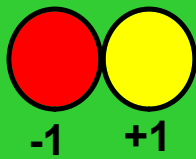


Now what do we do when the first number is a negative and there is nothing to take away?

$$(-2) \times (-4)$$

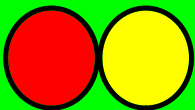
We have to put in enough tiles that we can take away that many sets.  
To make sure that we don't change that the circle starts out as zero, we put in sets of opposite integers.

We have to take away two sets of -4, so we have to put in 4 sets of both kinds of tiles.



Now you can take away two sets of -4

Let's try some!



-1

+1